AUTODOC CLUB

How to change engine oil and filter on a car – replacement tutorial

VIDEO TUTORIAL



THINGS YOU MAY NEED:



- Suitable engine oil
- A new oil filter
- A new drain plug
- A set of the necessary tools
- An oil filter removal tool
- A waste oil container
- Torque wrench
- Oil-resistant work gloves
- A cleaning agent

BUY TOOLS

AUTODOC experts recommend:

- Replace the oil filter every time when changing motor oil.

1 You'll first need to locate the main elements of the engine lubrication system



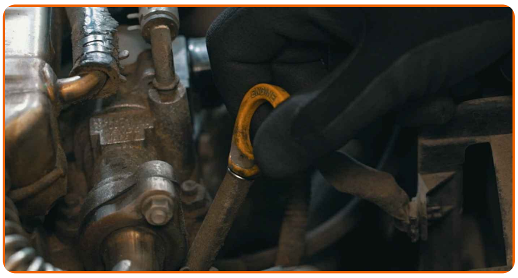
2 The oil filler. This is located on the top of the engine



3 The cap is usually labelled accordingly



4 The oil dipstick. It is located in the engine oil pan and sends the data on the oil level to the dashboard via the ECU



5 Instead of a dipstick, some vehicles are equipped with an electronic sensor

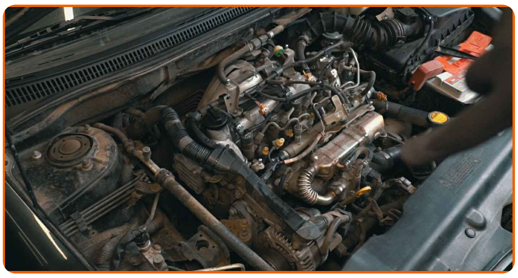
Important!

- Vehicles with automatic transmission may have 2 dipsticks in the engine bay
- One is used to check the engine oil level, and the other to check the transmission fluid level
- Do not mix them up

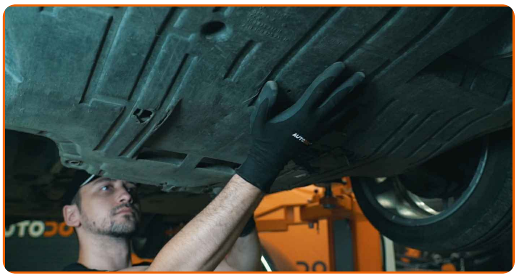
6 The oil filter. This can be designed as a cartridge that's inserted into the housing on the engine block or made as a separate one-piece spin-on component



7 The oil filter may be located on either side of the engine



8 If the oil filter is installed on the underside of the engine, you'll need to remove the engine splash guard



9 On some cars, the splash guard doesn't need to be removed, because a special service cover is provided for easy access to the filter



10 The drain plug. It is located under the engine in its oil pan



11 To access the underside of the vehicle, use a car lift, or an inspection pit or ramp or a jack



Please note!

- When using a jack you also need to use jack stands

12 Make sure that the car is in a completely level position. This way, the oil can be drained evenly from all parts of the engine



13 Oil filters from different manufacturers may vary in design. So it's advisable to use a universal wrench



AUTODOC recommends:

- Change the oil while the engine is still warm
- Warm oil has a higher fluidity

14 Unscrew the oil filler plug



15 Pull up the oil dipstick



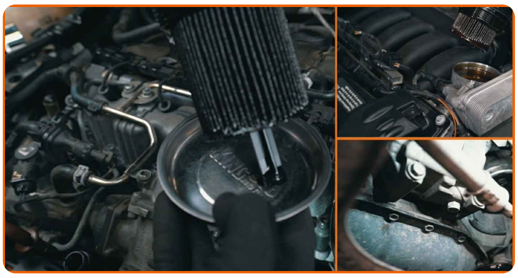
16 Clean the working area



17 Unscrew the oil filter cap or the filter itself



18 Take the oil filter out of its housing



Be careful!

- Prevent dirt from entering the filter mounting seat

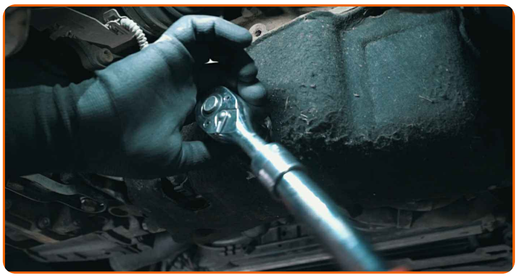
19 Place the waste oil container under the drain plug



20 Clean the working area



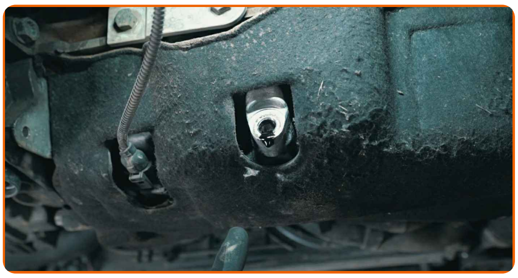
21 Unscrew the drain plug



Important!

- Proceed with care to avoid spilling the oil

22 Wait until the oil has completely drained from the drainage hole



23 Clean the oil filter seat



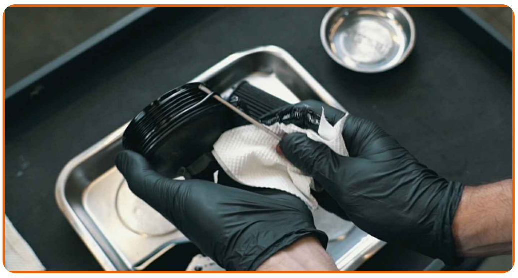
24 If the filter is a spin-on style one, lubricate its seal with some fresh oil



25 If the filter is a cartridge style one, remove it from its mounting seat on the cap



26 Remove the O-rings



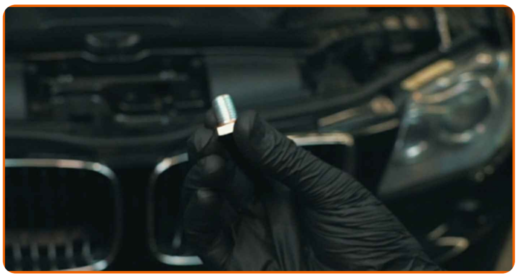
27 Clean the mounting seat of the cartridge



28 Install new O-rings and a new filtering element



29 Prepare a new drain plug with a new gasket



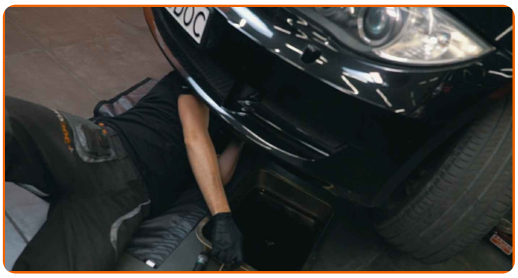
30 Clean the working area



31 Tighten the drain plug using a torque wrench to the manufacturer's recommended torque



32 Remove the waste oil container



33 Reinstall the engine splash guard



34 Install the oil filter and tighten it using a torque wrench to the manufacturer's recommended torque



35 Insert a funnel into the oil filler



Please note!

- Only use the oil type approved by the car manufacturer

36 Pour new oil into the engine in the amount recommended by the car manufacturer



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Check its level with the dipstick from time to time

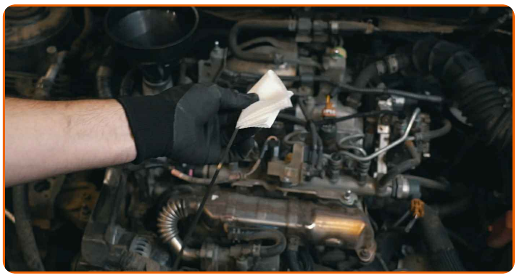


AUTODOC recommends:

- Check the oil level with the dipstick with the car standing on a flat, even surface

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Extract the dipstick and wipe off the old oil



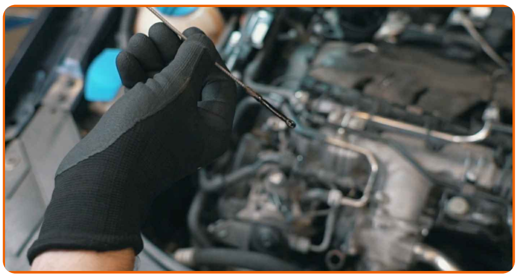
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Insert the dipstick as far as it can go and wait for a few seconds

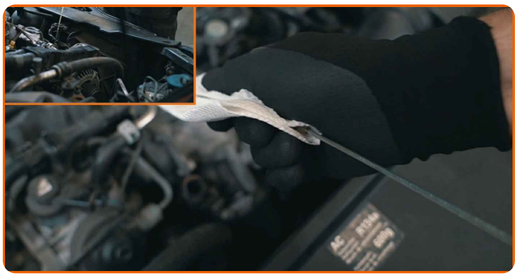


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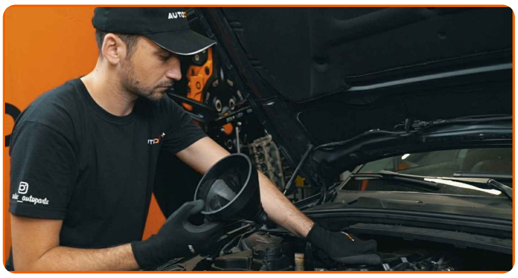
Extract the dipstick and inspect it without turning it upside down



41 Wipe the dipstick and put it back in its place



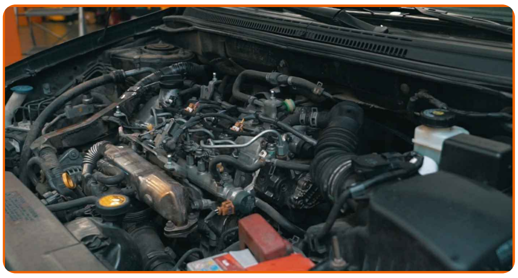
42 Remove the funnel and screw on the oil filler cap



43 Start the engine and let it run for 30 seconds



44 During this time, the engine oil will be distributed throughout the system



45 Shut down the engine and wait for a couple of minutes



46 Recheck the engine oil level and correct it, if necessary



Please note!

- The oil level should be between the Min and Max marks

47 As soon as the procedure is completed, reset the service interval



48 Alternatively, you can make a note of what mileage the maintenance job was done at



49 If your vehicle is not equipped with an oil dipstick, the oil level is displayed on the dashboard



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